AMENDMENTS TO THE CLAIMS

The following is a complete, marked-up listing of revised claims with a status identifier in parenthesis, underlined text indicating insertions, and strike through and/or double-bracketed text indicating deletions.

LISTING OF CLAIMS

1. (Previously Presented) An organometallic composition comprising organometallic compound (I) of Formula 1 containing Ag, organometallic compound (II) of Formula 2 containing at least one of Au, Pd and Ru, and organometallic compound (III) of Formula 3 containing at least one of Ti, Ta, Cr, Mo, Ru, Ni, Pd, Cu, Au and Al, wherein the metal components of organometallic compounds (II) and (III), respectively, are present in an amount of 0.01~10mol% based on the mole amount of Ag in the organometallic compound (I):

Formula 1

$Ag_mL_nX_p$

wherein,

L is a neutral metallic ligand having photosensitivity, which comprises 1~20 carbon atoms and a donor selected from the group consisting of N, P, O, S and As;

X is an anion selected from the group consisting of F^-, Cl^-, Br^-, I^-, alkoxide, hydroxy, cyano(CN^-), nitro(NO_2^-) nitrate(NO_3^-), nitroxyl, azide, thiocyanate, isothiocyanate, tetraalkylborate, tetrahaloborate, hexafluorophosphate(PF_6^-), triflate($CF_3SO_3^-$), tosylate(Ts^-), sulfate(SO_4^{2-}), carbonate(CO_3^{2-}), carboxylate, diketonate and alkyl anion;

m is an integer from 1 to 10;

n is an integer from 0 to 40, provided that each L is the same or different in the case where n is 2 or higher, and provided that L functions as a ligand connecting Ag atoms in the case where m is 2 or higher; and

p is an integer from 0 to 40, provided that each X is the same or different in the case that p is 2 or higher; and

both n and p are not zero at the same time;

Formula 2

$M'_{m'}L'_{n'}X_{p'}$

wherein,

M' is Au, Pd or Ru;

L' is a neutral ligand comprising 1~20 carbon atoms, which is selected from the group consisting of amine compounds, phosphine compounds, phosphite compounds, phosphineoxide compounds, arsine compounds, thiol compounds, carbonyl compounds, alkenes, alkynes and arene;

X is an anion selected from the group consisting of F^-, Cl^-, Br^-, I^-, alkoxide, hydroxy, cyano(CN^-), nitro(NO_2^-) nitrate(NO_3^-), nitroxyl, azide, thiocyanate, isothiocyanate, tetraalkylborate, tetrahaloborate, hexafluorophosphate(PF_6^-), triflate($CF_3SO_3^-$), tosylate(Ts^-), sulfate(SO_4^{2-}), carbonate(CO_3^{2-}), carboxylate, diketonate and alkyl anion;

m' is an integer from 1 to 10;

n' is an integer from 0 to 40, provided that each L' is the same or different in the case where n' is 2 or higher, and provided that L' functions as a ligand connecting metal atoms in the case where m' is 2 or higher;

p' is an integer from 0 to 40, provided that each X' is the same or different in the case where p' is 2 or higher; and

both p' and n' are not zero at the same time; and

Formula 3

$M''_{m''}L''_{n''}X''_{p''}$

wherein,

M" is Ti, Ta, Cr, Mo, Ru (provided that M' in Formula 2 is not Ru), Ni, Pd (provided that M' in Formula 2 is not Pd), Cu, Au (provided that M' in Formula 2 is not Au) or Al;

L" is a neutral ligand comprising 1~20 carbon atoms, which is selected from the group consisting of amine compounds, phosphine compounds, phosphite compounds, phosphineoxide compounds, arsine compounds, thiol compounds, carbonyl compounds, alkenes, alkynes and arenes;

X" is an anion selected from the group consisting of F^-, Cl^-, Br^-, I^-, alkoxide, hydroxy, cyano(CN^-), nitro(NO_2^-) nitrate(NO_3^-), nitroxyl, azide, thiocyanate, isothiocyanate, tetraalkylborate, tetrahaloborate, hexafluorophosphate(PF_6^-), triflate($CF_3SO_3^-$), tosylate(Ts^-), sulfate(SO_4^{2-}), carbonate(CO_3^{2-}), carboxylate, diketonate and alkyl anion;

m" is an integer from 1 to 10;

n" is an integer from 0 to 40, provided that each L" is the same or different in the case where n" is 2 or higher, and provided that L" functions as a ligand connecting metal atoms in the case where m" is 2 or higher; and

p"is an integer from 0 to 40, provided that each X" is the same or different in the case where p" is 2 or higher; and

both p" and n are not zero at the same time.

2. (Original) The composition according to claim 1, wherein L represents a neutral ligand selected from the group consisting of amine compounds, phosphine compounds, phosphite compounds, phosphineoxide compounds, arsine compounds, thiol compounds, carbonyl compounds, alkenes, alkynes and arene.

3-10. (Cancelled).

11. (Previously Presented) A pattern of a metal alloy or oxide of an organometallic composition comprising organometallic compound (I) of Formula 1 containing Ag, organometallic compound (II) of Formula 2 containing at least one of Au, Pd and Ru, and organometallic compound (III) of Formula 3 containing at least one of Ti, Ta, Cr, Mo, Ru, Ni, Pd, Cu, Au and Al, wherein the metal components of organometallic compounds (II) and (III), respectively, are present in an amount of 0.01~10mol% based on the mole amount of Ag in the organometallic compound (I):

Formula 1

$Ag_mL_nX_p$

wherein,

L is a neutral metallic ligand having photosensitivity, which comprises 1~20 carbon atoms and a donor selected from the group consisting of N, P, O, S and As;

X is an anion selected from the group consisting of F^-, Cl^-, Br^-, I^-, alkoxide, hydroxy, cyano(CN^-), nitro(NO_2^-) nitrate(NO_3^-), nitroxyl, azide, thiocyanate, isothiocyanate, tetraalkylborate, tetrahaloborate, hexafluorophosphate(PF_6^-), triflate($CF_3SO_3^-$), tosylate(Ts^-), sulfate(SO_4^{2-}), carbonate(CO_3^{2-}), carboxylate, diketonate and alkyl anion;

m is an integer from 1 to 10;

n is an integer from 0 to 40, provided that each L is the same or different in the case where n is 2 or higher, and provided that L functions as a ligand connecting Ag atoms in the case where m is 2 or higher; and

p is an integer from 0 to 40, provided that each X is the same or different in the case that p is 2 or higher; and

both n and p are not zero at the same time;

Formula 2

$M'_{m'}L'_{n'}X_{p'}$

wherein,

M' is Au, Pd or Ru;

L' is a neutral ligand comprising 1~20 carbon atoms, which is selected from the group consisting of amine compounds, phosphine compounds, phosphite compounds, phosphineoxide compounds, arsine compounds, thiol compounds, carbonyl compounds, alkenes, alkynes and arene;

X is an anion selected from the group consisting of F^-, Cl^-, Br^-, I^-, alkoxide, hydroxy, cyano(CN^-), nitro(NO_2^-) nitrate(NO_3^-), nitroxyl, azide, thiocyanate, isothiocyanate, tetraalkylborate, tetrahaloborate, hexafluorophosphate(PF_6^-), triflate($CF_3SO_3^-$), tosylate(Ts^-), sulfate(SO_4^{2-}), carbonate(CO_3^{2-}), carboxylate, diketonate and alkyl anion;

m' is an integer from 1 to 10;

n' is an integer from 0 to 40, provided that each L' is the same or different in the case where n' is 2 or higher, and provided that L' functions as a ligand connecting metal atoms in the case where m' is 2 or higher;

p' is an integer from 0 to 40, provided that each X' is the same or different in the case where p' is 2 or higher; and

both p' and n' are not zero at the same time; and

Formula 3

$M''_{m''}L''_{n''}X''_{p''}$

wherein,

M" is Ti, Ta, Cr, Mo, Ru (provided that M' in Formula 2 is not Ru), Ni, Pd (provided that M' in Formula 2 is not Pd), Cu, Au (provided that M' in Formula 2 is not Au) or Al;

L" is a neutral ligand comprising 1~20 carbon atoms, which is selected from the group consisting of amine compounds, phosphine compounds, phosphite compounds, phosphineoxide compounds, arsine compounds, thiol compounds, carbonyl compounds, alkenes, alkynes and arene;

X" is an anion selected from the group consisting of F^-, Cl^-, Br^-, I^-, alkoxide, hydroxy, cyano(CN^-), nitro(NO_2^-) nitrate(NO_3^-), nitroxyl, azide, thiocyanate, isothiocyanate, tetraalkylborate, tetrahaloborate, hexafluorophosphate(PF_6^-), triflate($CF_3SO_3^-$), tosylate(Ts^-), sulfate(SO_4^{2-}), carbonate(CO_3^{2-}), carboxylate, diketonate and alkyl anion;

m" is an integer from 1 to 10;

n" is an integer from 0 to 40, provided that each L" is the same or different in the case where n" is 2 or higher, and provided that L" functions as a ligand connecting metal atoms in the case where m" is 2 or higher; and

p"is an integer from 0 to 40, provided that each X" is the same or different in the case where p" is 2 or higher; and

both p" and n are not zero at the same time.